

## Claims:

1. A method of predicting whether an individual having hepatitis B virus (HBV) infection will respond to interferon (IFN) treatment; the method comprising;  
5 determining the presence or absence of antibodies reactive with a preS1(94-117) peptide in a sample obtained from the individual,  
the presence of said antibodies in said sample being  
10 indicative that said individual will respond to said treatment.
2. A method according to claim 1 comprising detecting the presence of said antibodies in said sample and thereby  
15 determining that the individual will respond to IFN treatment
3. A method according to claim 1 comprising detecting the absence of said antibodies in said sample and thereby  
20 determining that the individual will not respond to IFN treatment
4. A method according to any one of the preceding claims wherein the individual has chronic HBV infection.
- 25 5. A method according to any one of the preceding claims wherein the individual is HBeAg positive.
6. A method according to any one of claims 1 to 4 wherein the individual is HBeAg negative.  
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7. A method according to any one of the preceding claims wherein the antibodies are IgG or IgM antibodies.

8. A method according to any one of the preceding claims wherein the sample is a blood, serum or plasma sample.

9. A method according to any one of the preceding claims comprising;

contacting the sample with a preS1(94-117) peptide and; determining binding of said antibodies to said peptide.

10. A method according to claim 9 wherein the peptide comprises a detectable label.

11. A method according to claim 9 wherein said peptide is immobilised.

12. A method according to any one of claims 9 to 11 wherein said binding is detected with a labelled secondary antibody.

13. A kit for use in predicting whether an individual having hepatitis B will respond to interferon (IFN) treatment, the kit comprising;  
a preS1(94-117) peptide.

14. A kit according to claim 13 wherein said peptide is immobilised on a solid support.

15. A kit according to claim 14 wherein the solid support is a microtitre plate.

16. A kit according to any one of claims 13 to 15 further comprising a labelled secondary antibody which binds to human antibodies.

17. A kit according to any one of claims 13-16 further comprising reagents for detecting the binding of the labelled secondary antibody

5 18. A kit according to any one of claims 13-17 further comprising wash buffers.

19. A kit according to any one of claims 13-18 further comprising sample-handling containers.

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20. A method of treating a hepatitis B infection in an individual comprising;

identifying the individual as responsive to interferon (IFN) treatment using a method according to any one of claims

15 1 to 12, and;

administering IFN to said individual.

21. A method according to claim 20 wherein the IFN is alpha-IFN.

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22. A method according to claim 20 or claim 21 wherein corticosteroid is administered to the individual.

23. A method of predicting whether an individual having  
25 hepatitis B virus (HBV) infection will respond to interferon (IFN) treatment which is substantially as described herein, with reference to the accompanying table and figures.